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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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BEYER WEAVER & THOMAS LLP			PARK, JUNG H	
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2661

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/785,021

Applicant(s)

LEYN ET AL.

Examiner

Jung Park

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities:

In claim 1, line 1, "the system" should be changed to -- the network device -- since the claim preamble has been amended to recite a network device for transmitting a bitstream. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 1, 3-7, 9-14, 17-20 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Woodhead et al. (U.S. 5,640,388, hereafter "Woodhead").

Regarding claims 1, 9, 20 and 22, Woodhead discloses the method of claim 9 and the network device of claims 1, 20 and 22. Woodhead discloses, "network device[s] and method] for transmitting a bitstream, the network device comprising:

a first communication interface configured to receive the bitstream (*figure 5, element 120 shows a first interface receiving the data stream*), the bitstream including a timing relationship for data in a portion of the bitstream (*col. 18, lines 33-34 where the PCR is the timing relationship for the data in that packet*);

a processing apparatus configured to a) process the data in the bitstream portion in a manner that introduces jitter in the data (*figure 6, element 121 as described in col. 11,*

lines 50-59 where there is at least one processing apparatus, such as a de-mux, that passes the data packets with jitter to other apparatus within the system), and b) create a timestamp including timing information that describes the timing relationship of the data as the data was received (col. 9, lines 33-36 where PCRs are timestamps as described in col. 5, lines 20-21); and

a second communication interface configured to transmit an output bitstream onto a channel, the output bitstream including the timestamp and the data including jitter introduced by the processing apparatus (figure 1 shows various packets containing the timestamp and col. 9, lines 29-32 the packets with the corresponding timestamps and introduced jitter)."

Regarding claim 3, Woodhead discloses "the network device of claim 1 wherein further including a synchronization source configured to provide a reference time to the processing apparatus that is used in generating the timestamp (*figure 5, element 132 as described in col. 12, lines 48-49 where the local clock is used for clock reference as a synchronization source*)."

Regarding claim 4, Woodhead discloses "the network device of claim 1 wherein the processing apparatus includes a set of processing modules that may each create the timestamp (*figure 1 and 4 where each decoder is used to create a packet as shown in figure 1 with a timestamp*)."

Regarding claim 5, Woodhead discloses "the network device of claim 1 wherein the processing apparatus is configured to add this timestamp to at least one packet in a

set of packets included in the first bitstream (*col. 19, lines 5-12 where the new timestamp is replacing the old timestamp and thus it is added to at least one packet in the bitstream*)."

Regarding claim 6, Woodhead discloses "the network device of claim 5 wherein the bitstream is an MPEG-2 compressed bitstream and the processing apparatus is configured to add the timestamp to a transport packet in the MPEG-2 bitstream (*col. 18, lines 30 – col. 19, lines 1-12*)."

Regarding claim 7, Woodhead discloses "the network device of claim 6 wherein the processing apparatus is configured to replace a synchronization byte in the bitstream with a new synchronization byte (*col. 19, lines 5-12 where a PCR by its definition of being a timestamp is used to synchronization the bitstream so that the output matches the input as closely as possible*), the new synchronization byte signaling the beginning of payload data for a payload portion of the bitstream (*figure 2 shows bitstreams with timestamps and as seen they signal the beginning of the payload of the packet*)."

Regarding claim 10, Woodhead discloses "the method of claim 9 further including adding a synchronization byte that signals the beginning of payload data for a packet included in the bitstream (*col. 1, lines 46-52 wherein the overload information is effectively synchronization information by way of its described use*)."

Regarding claim 11, Woodhead discloses "the method of claim 10 wherein the bitstream includes a set of packets (*figure 4 where each shaded box represents a*

packet) and the method further includes adding the timestamp to at least one packet in the bitstream (col. 19, lines 5-12 where the new timestamp is replacing the old timestamp and thus it is added to at least one packet in the bitstream)."

Regarding claim 12, Woodhead discloses "the method of claim 9 further including receiving the bitstream from a second channel (*col. 18, lines 27-40 whereby demultiplexing the bitstream the dejitter device has effectively separated the packets into different channels, including a first and second channel*)."

Regarding claim 13, Woodhead discloses "the method of claim 12 further including restoring the timing relationship of the data in the portion of the bitstream after processing has occurred using the timing information included in the timestamp (*col. 19, lines 50-57 whereby the outputted data stream has been restored, as much as possible, to the original transmit timing thus it has been restored after processing and col. 5, lines 20-24 describes the recovery using timestamps*)."

Regarding claim 14, it is claim corresponding to claim 6 and is therefore rejected for the similar reasons set forth in the rejection of claim 6.

Regarding claim 17, Woodhead discloses "the method of claim 14 further including adding a stream identifier to the bitstream (*figure 1, element 16 of each is a stream identifier*).

Regarding claim 18, Woodhead discloses "the method of claim 9 wherein processing comprises one of multiplexing, re-multiplexing, de-multiplexing, encoding, transcoding, scrambling, and de-scrambling (*col. 18, lines 36-37 where the bitstream is at least de-multiplexed*)."

Regarding claim 19, Woodhead discloses "the method of claim 9 wherein the processing is performed in real-time (*col. 1, lines 27-37 where the video stream and audio steam are inherently real-time when watching TV for instance*)."

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodhead in view of Magee et al. (U.S. 6,002,687, "Magee").

Regarding claims 2 and 23, Woodhead discloses the network device of claim 1 and 22. Woodhead further discloses, "the processing apparatus is configured to multiplex, re-multiplex, de-multiplex (*figure 6, element 121 & 123 there should be the processing steps of multiplex, re-multiplexed and de-multiplex at some point in the elements*), encode (*col. 9, lines 29-31 where having to change to a different transmission standard means the data will have to be encoded*), transcode (*col. 9, lines*

29-31 where having to change to a different transmission standard means the data will have to be transcoded)...”

However, Woodhead lacks what Magee discloses, “scramble (*col. 3, lines 3-7 where the data can have at least two forms of scrambling*), and de-scramble (*col. 3, lines 3-7 whatever is scrambled at the transmitting end must be de-scrambled at the receiving end*) the data.”

It would have been obvious to one of ordinary skill in the art at the time of invention to scramble and de-scramble the data for the purpose of encoding and decoding the data (*Magee, col. 2, lines 51-55*). A motivation for encoding and decoding data is to compress that data for transmission, thus saving system resources (*Magee, col. 3, lines 23-25*).

6. Claims 8, 15, 16, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodhead in view of Lawrence (U.S. 6,323,789).

Regarding claims 8, 15 and 21, Woodhead discloses the network device of claim 6 and the device of claim 20. However, Woodhead lacks what Lawrence discloses, “the second interface is configured to transmit the output bitstream according to a DVB/ASI protocol (*col. 1, lines 52-col. 2, lines 1-16*).” It would have been obvious to one with ordinary skill in the art at the time of invention to include the DVB/ASI protocol for transmission for the purpose of allowing the data to be encoded into a word with more bits. The motivation for encoding data to a higher bit count is so that more characters or additional functions can be implemented using the encoded data.

Regarding claim 16, Woodhead and Lawrence disclose the method of claim 15. However, Woodhead lacks what Lawrence further discloses, "the transmitting utilizes an 8B/10B encoding scheme (*col. 1, lines 52-col.2, lines 1-16*).” It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include the 8B/10B encoding scheme for the purpose of allowing the data to be encoded into a word with more bits. The motivation for encoding data to a higher bit count is so that more characters or additional functions can be implemented using the encoded data.

Response to Arguments

7. The applicant's arguments filed on Jun 15 2005 have been fully considered, but they are not persuasive.

Applicant argues that Woodhead does not teach a network device comprising the first communication interface, processing apparatus and second communication interface as recited on the amended claims. However, Woodhead discloses the network device that includes those elements (see rejection for claim 1). Therefore, the examiner respectfully disagrees.

Applicant argues that the transmission site of Woodhead system removes any jitter introduced during transmission. However, it is well known in the art that a system must remove jitter before packet transmission and almost every component in a telecommunications system introduces some kind of time variations, that is, jitter. Therefore, any data that needs to have jitter removed, as in Woodhead, must have had it added at some point whether that be before or at the receiving end is dependent on the design of the system.

Applicant argues that the network device introduces jitter and transmits the data including jitter from an interface within the network device. However, Woodhead also shows that the jittered packets from the incoming interface pass through an apparatus and then transmits the packet data for further processing within the network device. Therefore, the examiner respectfully disagrees.

Applicant argues that the processing apparatus included in the network device is configured to do both a) and b) in claims 1, 9, 20 and 22. However, Woodhead discloses both of the above procedures in his/her system (see rejection for claim 1). Therefore, the examiner respectfully disagrees.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-8565 and email address is jung.park@uspto.gov. The examiner can normally be reached on Mon-Fri during 7:10-4:40.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

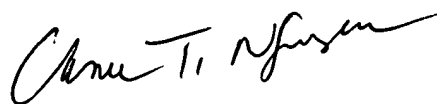
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JP

Jung Park
Patent Examiner
Art Unit 2661
August 18, 2005



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SUPERVISORY PATENT EXAMINER
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